Quarterly Project Status January 26, 2005

Vashon-Maury Island

Water Resources Evaluation

January 26, 2005

2004 Annual Summary

- Surface water gauging activities have increased on VMI during 2004.
  - 6 stream gauging sites up from 3.
  - Island-wide base flows measurements were done at 21 locations in April and September.
  - 2 additional precipitation stations were installed for a total of 5 sites across VMI
- Groundwater monitoring was completed during May/June.
- GW interactive webpage and database under development.

2004 Annual Summary - continued

- New Geologic mapping for Vashon-Maury Island was completed by University of Washington / GeoMapNW staff. An updated susceptibility map was done by the same group.

- New Critical Aquifer Recharge Areas (CARA) categories and map created across VMI. The new categories were remapped as a result of new geologic and water level data.

2004 Annual Summary - continued

- VMI Phase I island-wide groundwater flow model built.
  - Provides annual average water balance
  - Most thorough evaluation of VMI water balance ever conducted

2004 Annual Summary - continued

- Continued support for GW Committees and WRIA 15 related activities
  - participate in WRIA 15 planning process
    - Susan Oxholm is the KC representative for VMI
  - Write the VMI technical portion of WRIA 15 plan

2004 Annual Summary - continued

- Water Resource Evaluation Budget:
  - Project budget for 2004 was $303,625
  - Project Expeditures in 2004 were $299,064
    - Total Annual hours higher (2095 vs 2262)
    - Supplies/Services were less

2005 Overview

- Project budget for 2005 is $377,371
  - Monitoring $203,124
  - Modeling $81,284
  - Data Management $40,051
  - Project Management and coordination $52,912

2005 Monitoring

- Continued stream and precipitation gauging
- Island-wide baseflow measurements (Apr/May & Sep)
- Island-wide water level survey (May & Sep)
- GW monitoring for Pesticides
  - sampling early summer
  - analyte list under development

2005 Monitoring - continued

- Monitoring well installations (Jun & Oct)
  - Well installation will be done is 2 phases
    - 2 steps in each phase
      - Scoping & site location
      - Drilling & installation of wells
  - Working King County DOT to help with drilling portion of the monitoring wells installation

2005 Modeling

- Phase I refinements
- Phase I modeling report (Apr)
- Phase I modeling Peer Review (May)
- The Phase II (surface water component) modeling will be begin 3rd quarter of 2005

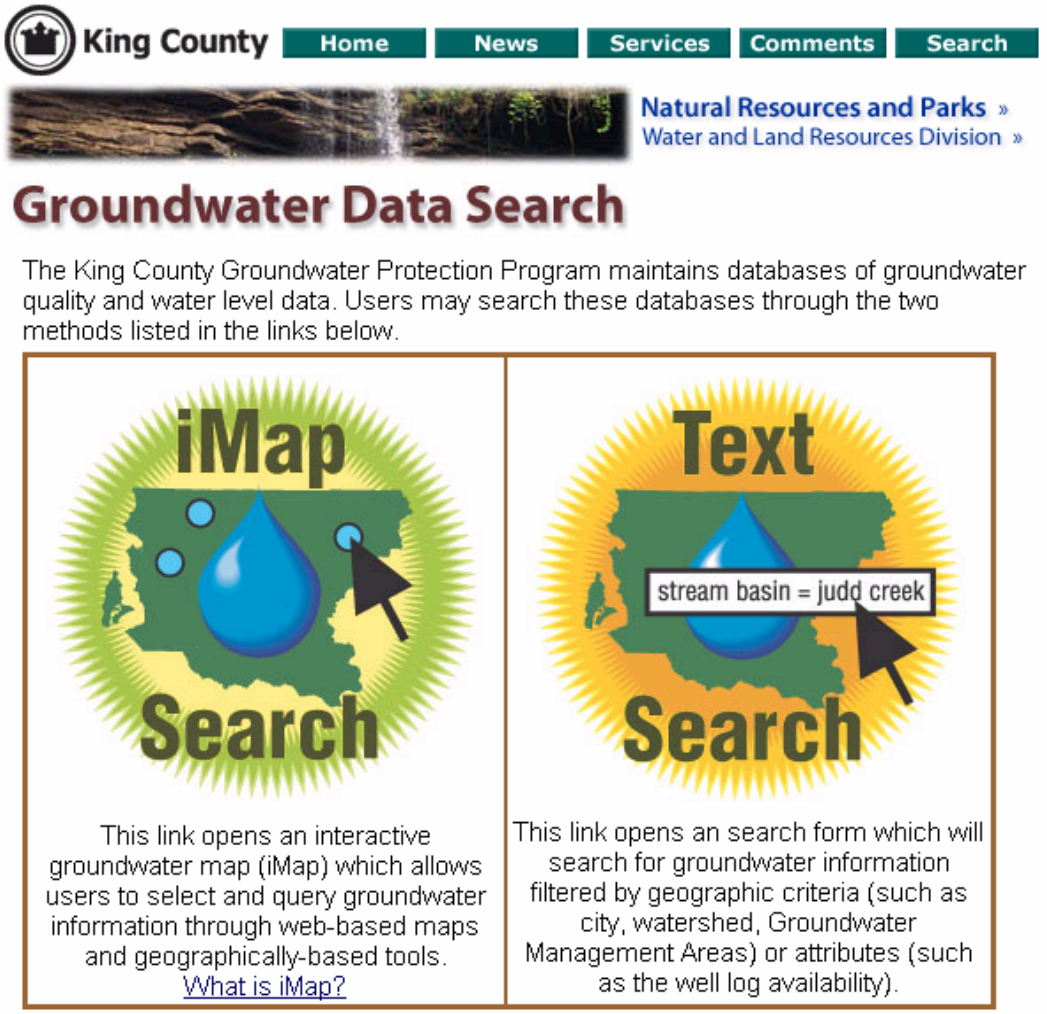
2005 Data Management

- Interactive webpage deployment (soon)
  - New Service will allow users access to our groundwater data
  - Map and text driven search options
    - Numerous screen shots to follow
- Data reports and maps published and distributed

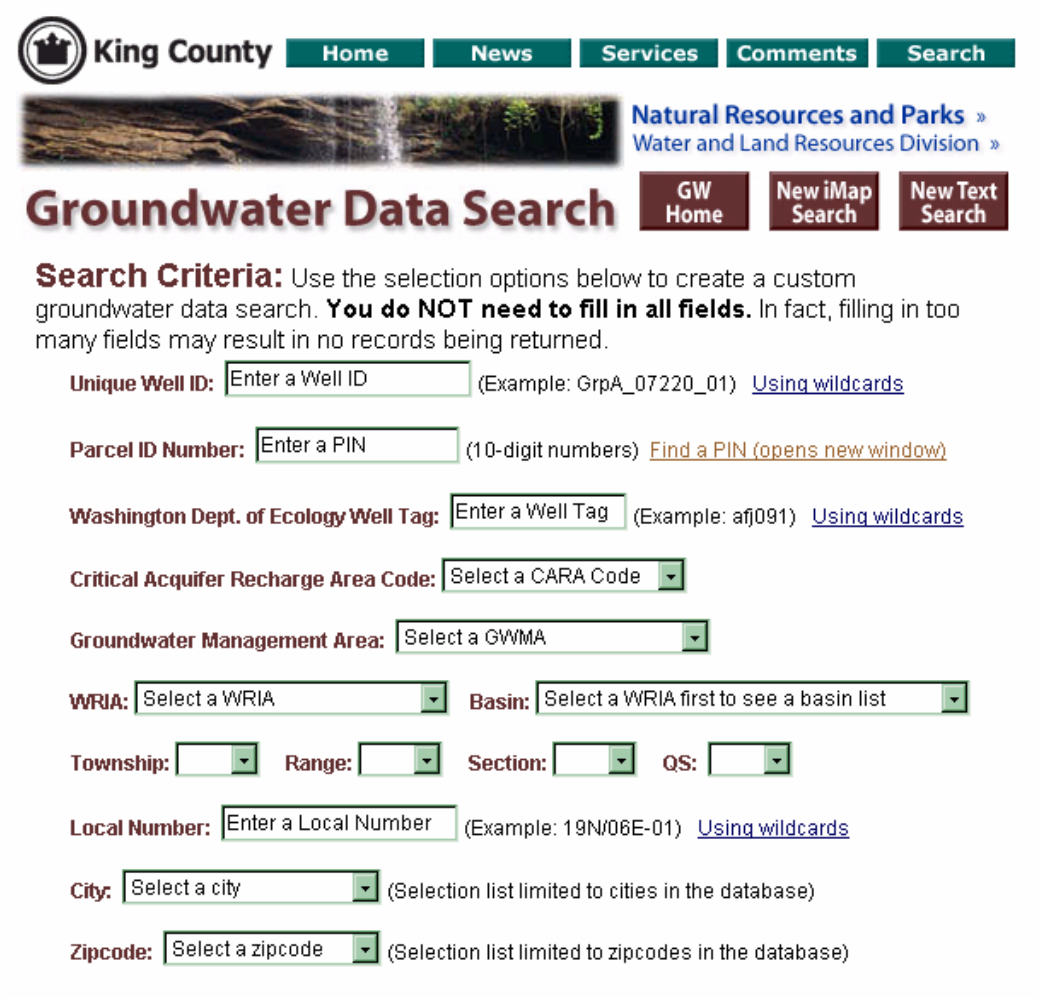
Project Management and Coordination Progress

- Quarterly VMI GW committee meetings
- Continue to participate in WRIA 15 planning process
  - Susan Oxholm is the KC representative for VMI
- Still Upcoming
  - Write the VMI technical portion of WRIA 15 plan

Interactive webpage/database

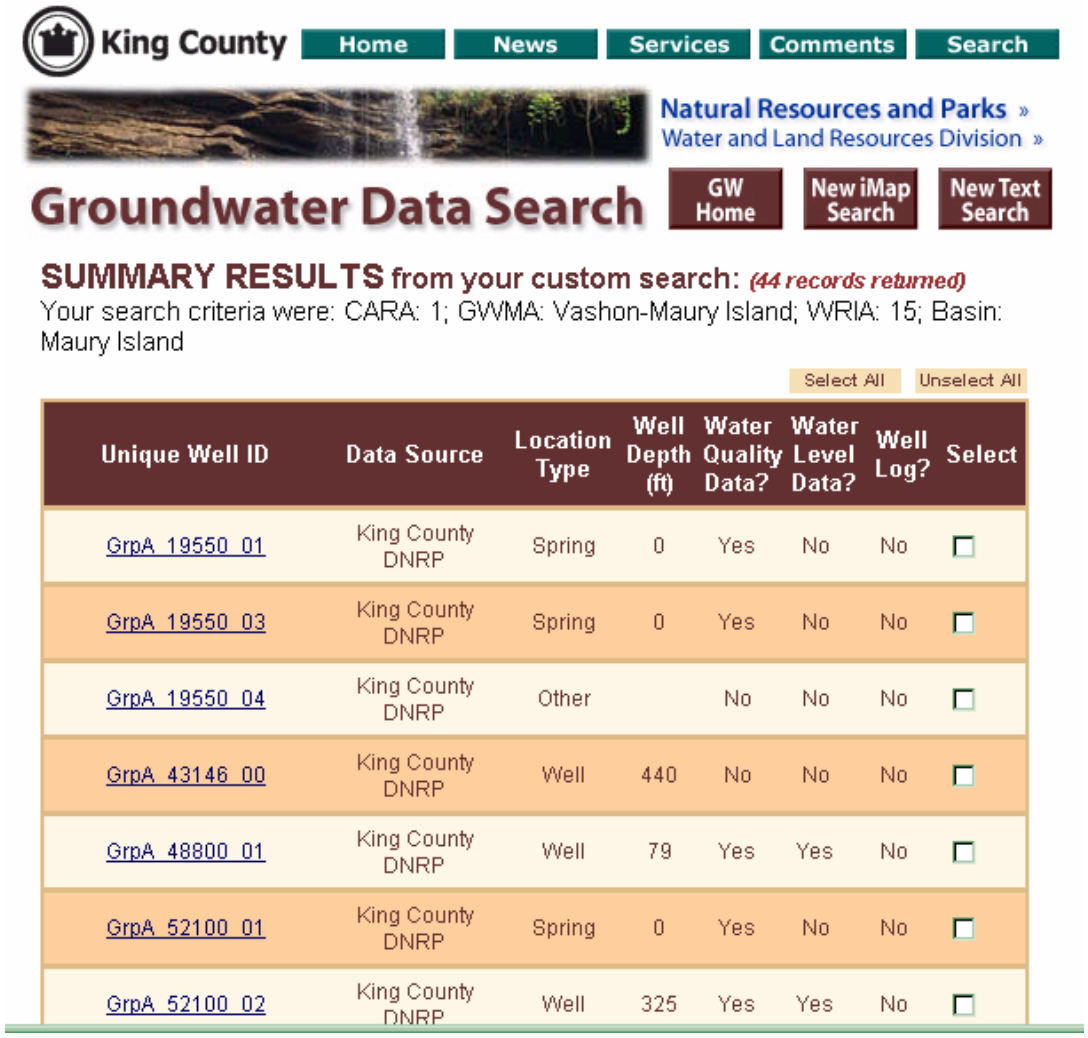


Interactive webpage/database



January 26, 2005

Interactive webpage/database



Unique Well ID	Data Source	Location Type	Well Depth (ft)	Water Quality Data?	Water Level Data?	Well Log?	Select
GrpA_19550_01	King County DNRP	Spring	0	Yes	No	No	☐
GrpA_19550_03	King County DNRP	Spring	0	Yes	No	No	☐
GrpA_19550_04	King County DNRP	Other		No	No	No	☐
GrpA_43146_00	King County DNRP	Well	440	No	No	No	☐
GrpA_48800_01	King County DNRP	Well	79	Yes	Yes	No	☐
GrpA_52100_01	King County DNRP	Spring	0	Yes	No	No	☐
GrpA_52100_02	King County DNRP	Well	325	Yes	Yes	No	☐

Interactive webpage/database

Groundwater Data Search

GW Home | New iMap Search | New Text Search

Your search criteria were: CARA: 1; GWMA: Vashon-Maury Island; WRIA: 15; Basin: Maury Island

This is page 1 of 3 pages of selected locations. *Go to page:* 1 GO!

General Location Details:

Unique Well ID: GrpA_48800_01
Parcel ID Number: 1422039100
Washington Dept. of Ecology Well Tag: afj061
Critical Acquifer Recharge Area Code: 1
Groundwater Management Area: Vashon-Maury Island
WRIA: 15 **Basin:** Maury Island
Township: 22N **Range:** 03E **Section:** 14 **QS:** NW/SW
Local Number: 22N/03E-14M
City: King County **Zipcode:** 98070
Data Source: King County DNRP Who are these data sources?
Location Type: Well **Well Depth:** 79 Feet
Surface Elevation: 166.36 Feet What is surface elevation?
Location Accuracy: GPS What are these location accuracies?

Well Log Data:

King County well log data is not available.
The link below leads to the Washington Dept. of Ecology (WA DOE) Well Logs website and searches for any available well logs for this location. Well logs are available from WA DOE in both PDF and TIF formats. **[NOTE: this link will open a new window]:**
Search for WA DOE well logs for afj061

Water Level Data:

Interactive webpage/database

Water Level Data:

Measurement Date	Measurement Time	Depth to Water (feet)	Water Level Elevation (feet)	Measurement Method
7/19/1989	02:45	91.15	19.27	Calibrated electric tape
10/4/1989	10:40	88.92	21.50	Calibrated electric tape
10/31/1989	10:50	89.9	20.52	Calibrated electric tape
11/29/1989	11:11	89	21.42	Calibrated electric tape
12/28/1989	10:10	88.75	21.67	Calibrated electric tape
1/31/1990	10:08	87.83	22.59	Calibrated electric tape
2/28/1990	10:34	89.44	20.98	Calibrated electric tape
3/30/1990	10:55	90.6	19.82	Calibrated electric tape
4/17/1990	10:30	88.88	21.54	Calibrated electric tape
5/31/1990	10:25	89.06	21.36	Calibrated electric tape
6/29/1990	09:56	141.5	-31.08	Calibrated electric tape
7/27/1990	10:04	89.23	21.19	Calibrated electric tape
8/30/1990	11:25	90	20.42	Calibrated electric tape
9/25/1990	10:23	88.65	21.77	Calibrated electric tape
10/23/1990	10:18	90.62	19.80	Calibrated electric tape
11/29/1990	10:47	87.85	22.57	Calibrated electric tape
1/31/1991	10:04	89.15	21.27	Calibrated electric tape
2/28/1991	09:27	88.98	21.44	Calibrated electric tape

Interactive webpage/database

Water Quality Data:

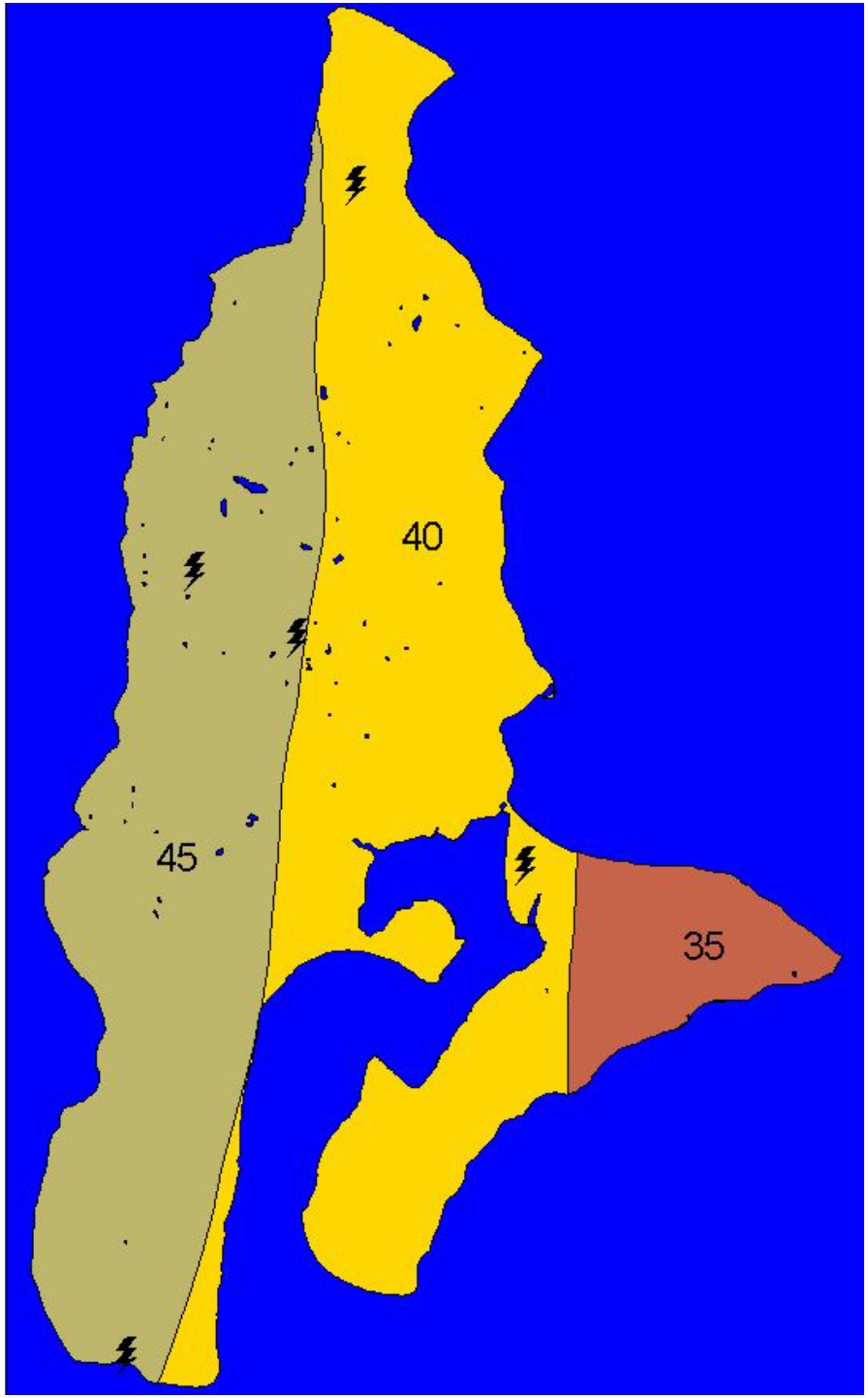
Measurement Date	Measurement Time	Task Code	Sample Type	No. of Analyte	Select
10/31/1981	23:59	VAS_historic_report	Normal Environmental	4	☐
11/30/1989	23:59	VAS_historic_R1	Normal Environmental	31	☐
4/17/1990	23:59	VAS_historic_R2	Normal Environmental	31	☐
10/23/1990	23:59	VAS_historic_R3	Normal Environmental	30	☐
1/18/2001	15:25	Vas_Round1	Normal Environmental	40	☐
4/10/2001	12:20	Vas_Round1	Normal Environmental	33	☐
4/10/2001	12:30	Vas_Round1	Field Replicate	33	☐
11/28/2001	15:20	Vas_Round2	Normal Environmental	159	☐
6/10/2002	11:15	Vas_Round3	Normal Environmental	37	☐
10/2/2002	13:20	Vas_Round4	Normal Environmental	37	☐
6/5/2003	13:20	Vas_Round5	Normal Environmental	38	☐
11/17/2003	12:33	Vas_Round6	Normal Environmental	38	☐

VMI
data layers

Precipitation Zones

Numbers are inches/year
for each zone.

Precipitation gauge sites
are as shown.



January 26, 2005

VMI data layers

Landcover Categories

(based on a 12 cover 2001 Landsat coverage)

Red = Developed Land
Tan = Non-Forest Vegetation
Green = Forest
Blue = Water

Developed Land = 10.9%
Non-Forest Vegetation = 16.2%
Forest = 79.2%
Water = 0.02%

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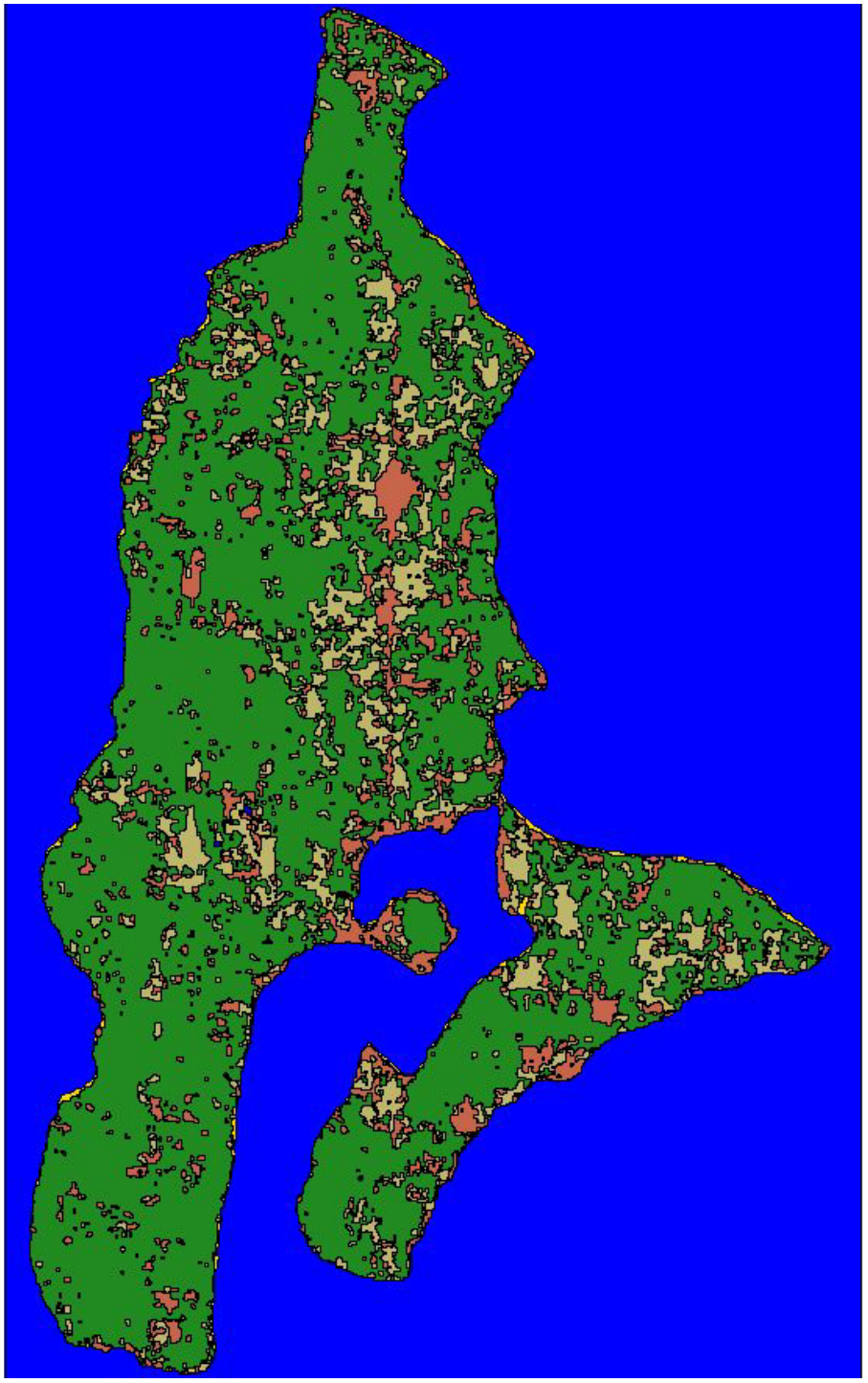


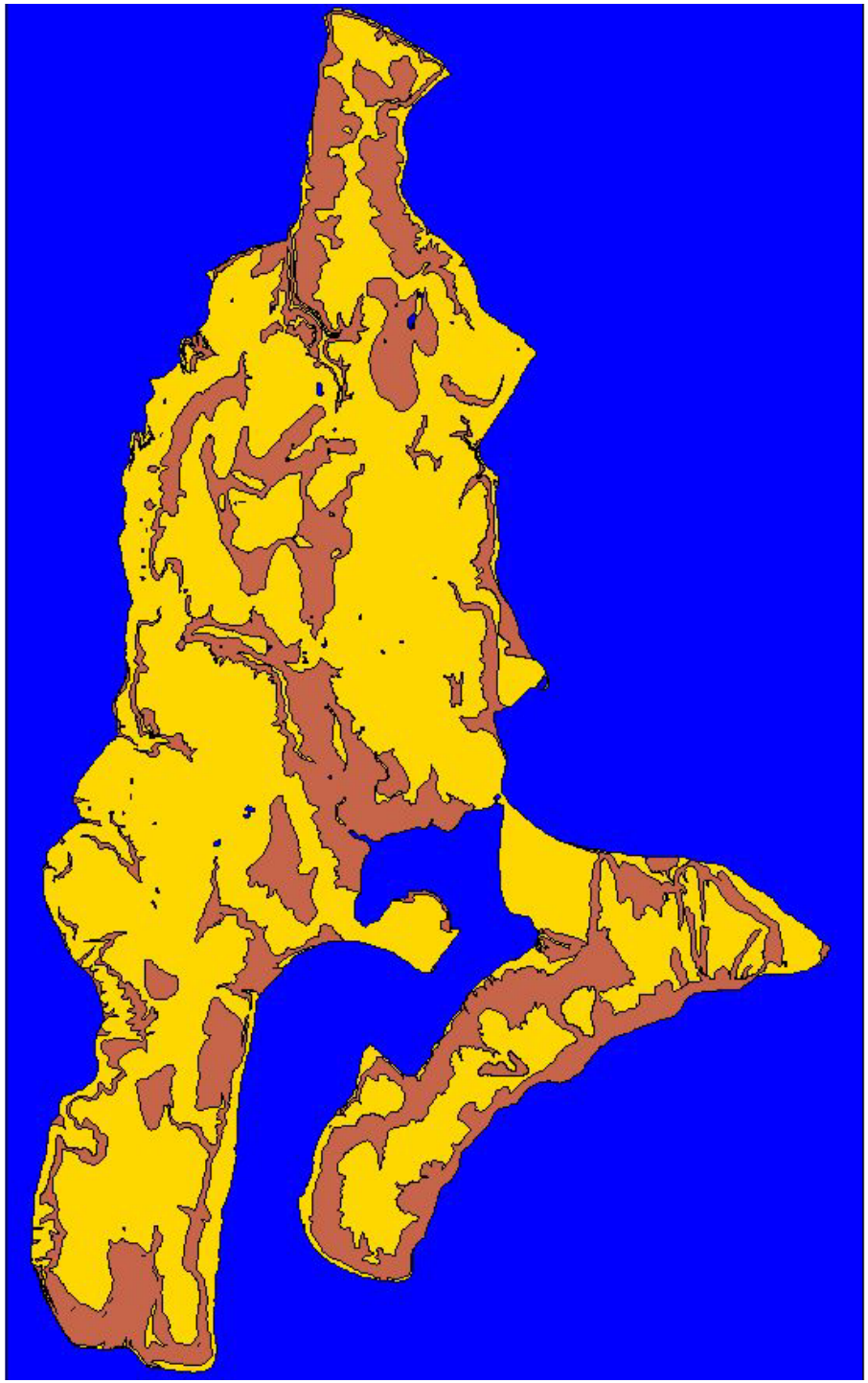
VMI data layers

Geology Classifications

Red = Outwash/Alluvium
Gold = Till-like
Blue = Water

Outwash/Alluvium = 32.0%
Till-like = 68.0%

January 26, 2005



VMI
data layers

CARA Classifications

Red = Class I
Yellow = Class II
Stripe = Class III

Class I = 20.6%
Class II = 14.7%
Class III = 64.7%

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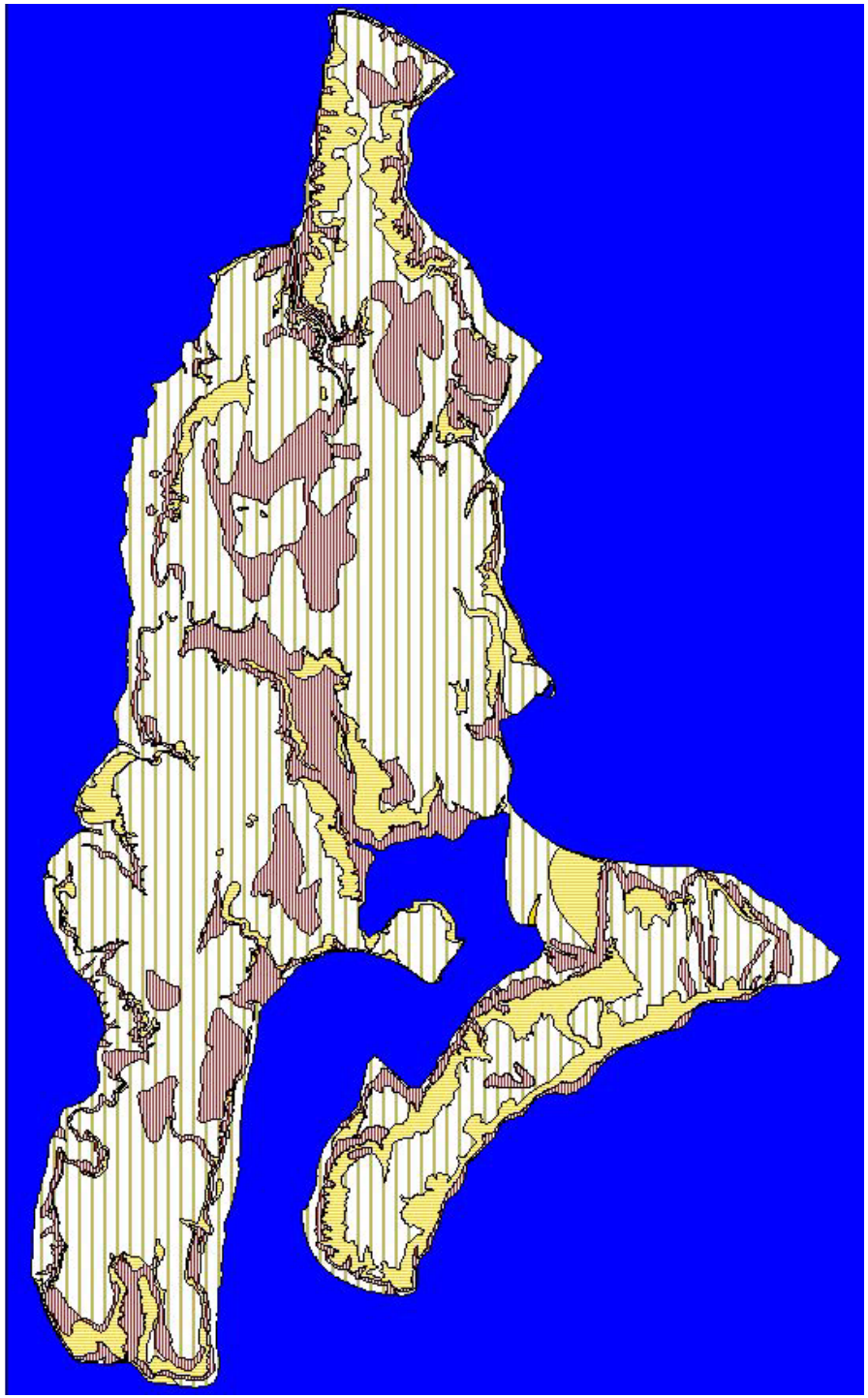
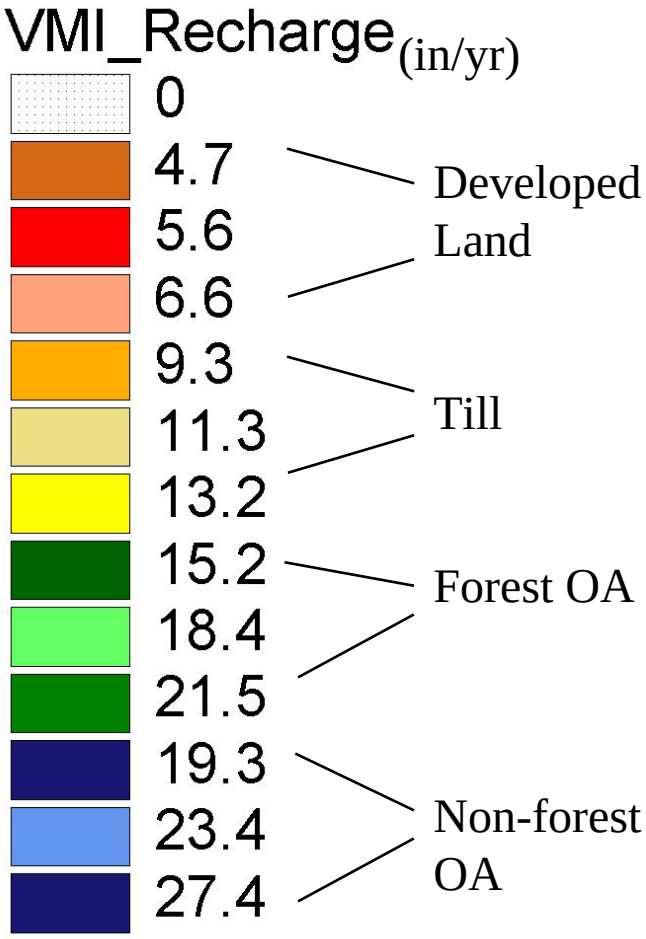
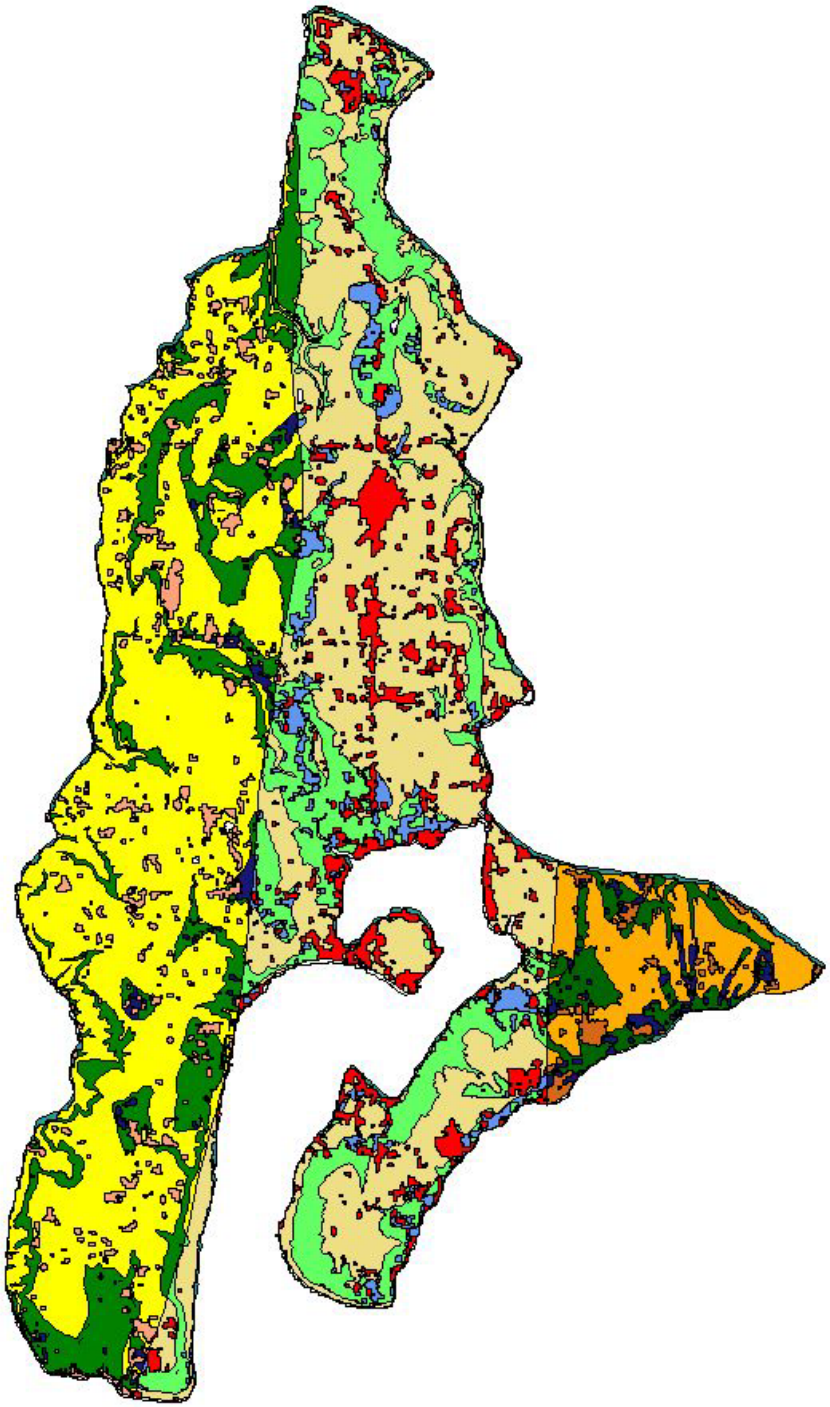


VMI data layers



January 26, 2005



VMI data layers

Wells + Wellhead Protection Areas

Black = Group A sources
Brown = Group B
Teal = Domestic

Group A = 53
Group B = 138
Domestic = 838

Rings = Wellhead Protection Areas

January 26, 2005